

Golf Tee Bristle Cap

DESCRIPTION

Cross-Reference to Related Application

[Para 1] This application for a patent claims priority to US Provisional Application No. 60/506,862 as filed September 30, 2003.

Background

[Para 2] The present invention relates generally to tees for golfing, and more particularly to an attachment for golf tees in order to substantially increase energy transfer to a golf ball when struck by a golf club.

[Para 3] Typically, amateur and professional golf players alike abide by the rules of golf as promulgated by the Royal and Ancient (R&A) in St. Andrews, Scotland and by the United States Golf Association (USGA).

[Para 4] Rule 11 of the USGA permits certain situations under which a player may "tee" a golf ball. According to the USGA, a "tee" is "a device designed to raise the ball off the ground. It must not be longer than 4 inches (101.6 mm) and it must not be designed or manufactured in such a way that it could indicate the line of play or influence the movement of the ball."

[Para 5] A standard golf tee is usually a small wooden, plastic or rubber spike having a shallow concave surface on which to place a golf ball, wherein the concave surface is opposite the spike end of the tee. Such a golf tee is driven by hand into the ground with the spike end of the tee. A golf ball is

positioned on the opposing concave portion, and then the golf ball is driven forward towards the golf hole by being hit by a golf club.

[Para 6] One of the most common situations under which a player tees a golf ball is at the start of a new hole. Thus, a player may be permitted to tee a golf ball a minimum of eighteen times per round of golf, assuming a complete round of golf. The first shot may be critical to the play of the remainder of the hole based on the distance and placement of the hit golf ball, and as such, many technical innovations have been made to improve longer and more accurate golf shots.

[Para 7] Most technical innovations in the game of golf are directed to the advancement in golf clubs and golf balls. However, some advancements have been attempted in golf tees as well.

[Para 8] US Patent No. 6,053,822 to Kolodney, et al. (hereinafter "Kolodney"), describes a golf tee having a stem and connected head, wherein the head includes a plurality of holes around the periphery of the head. A plurality of groups of bristles are retained in the holes to provide a circular brush member above the head of the golf tee. The Kolodney golf tee limits the play options for a player. That is, for example, the Kolodney golf tee requires trimming the groups of bristles in certain situations in order to be able to properly hit the ball. The Kolodney golf tee is also comprised of a plastic material that is not biodegradable and can damage mower blades. Plastic golf tees are also notorious for breaking more easily than wooden tees, and thus, cannot be re-used as easily as wooden tees.

[Para 9] US Patent Application Publication No. 2004/0067802 to Salsman (hereinafter "Salsman"), describes a golf tee having a ball support surface comprising a low surface material such as, for example, a fluorochemical or flouropolymer such as polytetrafluorethylene (PTFE, sold under the brand name TEFLON®), in order to reduce the frictional resistance of the tee against the golf ball when the golf ball is struck by a swinging golf club. The Salsman golf tee may also comprise three projections on the support surface to raise the golf ball. The Salsman golf tee is a molded or machined plastic or a coated wooden tee.

[Para 10] The present invention present invention overcomes the deficiencies of known golf tees by permitting golf players to have the advantages of wooden golf tees, without the environmental and machine damage of non-wooden tees, and at a more cost effective level.

Summary

[Para 11] The various exemplary embodiments of the present invention includes a removable golf tee cap, comprising a base member and three or more bristle packets attached to the base member. The bristle packets are attached to the base member via one or more support holes, and the bristle packets extend upwards. The base member comprises a hallow substantially central core, one or more support holes, and one or more notches extending from a top of the base towards a bottom of the base member.

[Para 12] The various exemplary embodiments of the present invention further includes a method of hitting a golf ball from a tee. The method includes inserting a golf tee through a hallow substantially central core of a removable golf tee bristle cap. The removable golf tee bristle cap comprises a base member and three or more bristle packets attached to the base member via one or more support holes, and the bristle packets extend upwards. The base member comprises a hallow substantially central core, one or more support holes, and one or more notches extending from a top of the base towards a bottom of the base member. The ground is then penetrated with a spike of the golf tee attached to the removable golf tee bristle cap such that the bristle packets extend upwards away from the ground. A golf ball is then placed on the bristle packets and then hit off the bristle packets with a golf club.

Brief Description of the Drawings

[Para 13] The various exemplary embodiments of the present invention, which will become more apparent as the description proceeds, are described in the following detailed description in conjunction with the accompanying drawings, in which:

[Para 14] FIG. 1 is an illustration of an exemplary embodiment of the present invention.

[Para 15] FIG. 2 is an illustration of a cut-away view along line A-A of FIG. 1 of a base member according to an exemplary embodiment of the present invention.

[Para 16] FIG. 3 is an illustration of a top view of a base member according to an exemplary embodiment of the present invention.

[Para 17] FIG. 4 is an illustration of a cut-away side view of a typical golf tee fitted with a base member according to an exemplary embodiment of the present invention.

[Para 18] FIG. 5 is an illustration of a golf ball being teed on a typical golf tee fitted with a base member according to an exemplary embodiment of the present invention.

Detailed Description

[Para 19] The exemplary embodiments of the present invention includes an attachment for a golf tee comprising several packets of bristles extending upward from a base member attached to a golf tee.

[Para 20] FIG. 1 represents an exemplary embodiment according to the present invention. The golf tee cap 100 of the represented exemplary embodiment comprises a base member 110 and three bristle packets 140. The bristle packets extend upward from support holes 135 in the base

member top 114. Although the material comprising the base member may not be biodegradable, if the attached golf tee is broken, the base member is able to be retrieved, removed from the broken golf tee, and reused on another golf tee.

[Para 21] The base member is comprised of a molded plastic that is soft and pliable enough that it will not cause damage to lawn mower blades, yet hard and strong enough to support the bristle packets upon which a golf ball is rested.

[Para 22] It is preferred that the base member be pliable enough to accommodate a variety of differently sized golf tee heads.

[Para 23] As shown in FIG. 4, a golf tee 200 is inserted into the central core 120 of the base member 110, with the shaft 205 and spike 210 of the golf tee extending downward away from the base member bottom 112.

[Para 24] The golf tee 200 rests against the central core walls 122 which substantially surround the golf tee shaft and head 215. The golf tee head is also held in place by a retaining lip 118 which preferably rests on the top of the golf tee head. The retaining lip may be segmented or whole around the central core at the base member top.

[Para 25] As the base member of various exemplary embodiments essentially wraps around and securely snaps to a golf tee, and as golf tees heads, shafts and spikes come in a variety of sizes, the base member according to the various exemplary embodiments of the present invention should be flexible enough to accommodate the variety of golf tee components. However, the base member is preferably also strong enough to not fly off the golf tee when struck by a clubface of a golf club.

[Para 26] In a preferred embodiment, the base member is comprised entirely or in part of at least one of plastic, plastic-like material or plastic composite.

[Para 27] To assist in and ease the attachment of the present invention to a golf tee, in a preferred embodiment, the base member further comprises a notch 125. Such a notch provides additional pliability to the base member such that it can more easily accommodate and extend over larger golf tee

heads. A notch also allows one to part the base member to remove a golf tee from the base member if desired, for example, if the golf tee should be broken when hit.

[Para 28] The notch of various exemplary embodiments preferably is an open region of the base member. That is, for example, that there is no material comprising the base member in the area of the notch. It is preferred that a depth of the notch be from the central core to the base member exterior 115. The notch is preferably about 0.5 mm to about 1.5 mm wide. In a more preferred embodiment, the notch is about 1 mm wide.

[Para 29] The notch of the various exemplary embodiments according to the present invention extends substantially from the base member top 114 to the base member bottom 114.

[Para 30] In an exemplary embodiment, the notch does not extend fully from the base member top to the base member bottom in order to substantially limit the golf tee bristle cap from becoming dislodged and flying off at attached golf tee when struck with a golf club.

[Para 31] In a preferred embodiment, the notch extends about 50 percent to about 95 percent of the distance between the base member top and the base member bottom.

[Para 32] In a more preferred embodiment, the notch extends about 60 percent to about 90 percent of the distance between the base member top and the base member bottom.

[Para 33] The base member further comprises three or more support holes 135 in the base member top 114. The bristle packets 140 are attached to the base member in the support holes. Attachment of the bristle packets to the base member may include, for example, an adhesive or molding the base member to the bristle packets.

[Para 34] Preferably, the number of support holes and the number of bristle packets are the same.

[Para 35] The bristle packets may extend at an angle of about 135 degrees and about 225 degrees from the stake and spike of an attached golf tee.

Preferably, the bristle packets extend upward at an angle of about 160 degrees and about 190 degrees from the stake and spike of an attached golf tee.

[Para 36] In the various exemplary embodiments, individual bristles of the bristle packets may be of any length. Preferably, the individual bristles comprising the bristle packets are of a length such that the distance between the spike of an attached golf tee and an end of the bristles furthest from the base member is four inches or less. Such a length would allow the golf tee to be within regulation length as set forth by USGA rules.

[Para 37] In another exemplary embodiment of the present invention, the length of the bristles comprising the bristle packets is about 5/16 to about 1 1/2 of an inch above the base member top.

[Para 38] The bristles comprising the bristle packets according to the various exemplary embodiments of the present invention are comprised of a material that is sturdy enough to support a golf ball above the base member top, but also flexible enough to relent when the golf ball is struck by a golf club.

[Para 39] The number of bristles per bristle packet of the various exemplary embodiments according to the present invention depends on the material of which the bristles are composed.

[Para 40] The base member of various exemplary embodiments may further comprise of one or more nodes 130 extending out from the central core of the base member. The support holes may be located substantially center of the nodes, if present. See, for example, FIG. 3. The notch would then be located between two adjacent nodes. Preferably, the number of nodes, support holes and bristle packets are the same.

[Para 41] In the various exemplary embodiments, the number of bristles packets is about 3 to about 6. In a more preferred embodiment, the number of bristle packets is 3.

[Para 42] The base member top of various exemplary embodiments of the present invention is preferably substantially flat.

[Para 43] The base member 110 of various exemplary embodiments further comprises a central core 120 that extends substantially through the base

member 110 from the base member top 114 to the base member bottom 112. A cross-section of the central core may be of any geometric symmetrical or asymmetrical shape. It is preferred, however, that the cross section of the central core be circular.

[Para 44] The central core of the various exemplary embodiments is conical in shape, that is, narrower at the base member bottom than at the base member top. See, for example, FIG. 2. A conical shape allows for a golf tee to be inserted into the base member from the base member top, but not allow the golf tee to travel completely through the base member. See, for example, FIG 4. The conical shape of the central core substantially hinders the golf tee, which is typically shaped to be narrow at the bottom in order to be inserted into the ground, and wider at the top in order to support a golf ball.

[Para 45] The diameter of the central core of the various exemplary embodiments is sized to permit the shaft and spike of a golf tee to pass through the base member bottom. In a preferred embodiment, the central core is about $\frac{1}{4}$ inch or less.

[Para 46] The base member according to the various exemplary embodiments of the present invention may also extend the life of a golf tee. The base member may absorb and dissipate energy transferred when hit by a golf club. Further, the base member is more likely to be hit directly by a golf club than the attached golf tee is, thereby extending the life of the golf tee by not breaking the golf tee by hitting it with a golf club.

[Para 47] Fig. 5 shows a hand 300 positioning in the ground a golf tee 200 attached to a golf tee bristle cap 100 according to the various exemplary embodiments of the present invention. A golf ball 250 is supported by the bristle packets 140 of the golf tee bristle cap. As the golf tee is inserted into the ground (not shown), the golf ball may be used to push down on the golf ball bristle cap and golf tee. After the golf tee is inserted into the ground at the desired location, the hand releases the golf ball, golf ball bristle cap and attached golf tee. The bristle packets will then lift the ball up and away from the base member such that the only points of friction on the golf ball will be the bristle packets of the golf tee bristle cap.

[Para 48] Three bristle packets, an exemplary embodiment of the present invention, evenly spaced from one another at 120 degrees limits the contact and friction on the golf ball such that when the golf ball is struck with a golf club, a greater amount of energy is transferred to the golf ball because the coefficient of friction between the three bristle packets according to the present invention and the golf ball is minimize over other designs. Because the energy to overcome the coefficient of friction is minimized, more energy transferred to the golf ball when hit can be expended moving the golf ball away from the golf tee and golf club.

[Para 49] While this invention has been described in conjunction with the specific embodiments outlined above, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accordingly, the preferred embodiments of the invention as set forth above are intended to be illustrative, not limiting. Various changes may be made without departing from the spirit and scope of the invention.